

Appln. No. 10/065,461
Docket No. 126800/GEN-0342

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) An automatic transfer switch comprising:

a housing;

a switch for switching electrical connection from a first external power source to a second external power source;

a first timer and a second timer disposed within said housing, said first and second timers having first and second time delays, respectively;

said switch responsive to said first and second timers; and wherein

initiation of said second time delay is nested within said first time delay.

2. (original) The automatic transfer switch of Claim 1, further comprising:

a third timer disposed within said housing, said third timer having a third time delay;

said switch responsive to said third timer; and wherein

said third time delay is nested.

3. (original) The automatic transfer switch of Claim 1, further comprising:

a controller disposed within said housing; wherein

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said switch and said first and second timers are responsive to said controller.

4. (original) The automatic transfer switch of Claim 3, further comprising:

a display disposed on said housing for displaying a status of at least one of said switch, said first and second timers, said nested time delays, and an external power source.

5. (original) The automatic transfer switch of Claim 4, wherein:

said display is responsive to said controller.

6. (original) The automatic transfer switch of Claim 3, further comprising:

a control panel disposed on said housing for inputting information to said controller.

7. (original) The automatic transfer switch of Claim 1, further comprising:

a third timer disposed within said housing, said third timer having a third time delay;

said switch responsive to said third timer; and wherein

said third time delay is adjustable between zero delay time and an upper threshold delay time.

8. (original) The automatic transfer switch of Claim 5, further comprising:

an actuator responsive to said controller;

said switch responsive to said actuator; and wherein

said actuator comprises an overcentering mechanism.

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9. (original) The automatic transfer switch of Claim 8, further comprising:

a drive system responsive to said controller;

said actuator responsive to said drive system; and wherein

said drive system is a high speed drive system.

10. (original) The automatic transfer switch of Claim 1, wherein;

said switch comprises electrical contacts, wherein said electrical contacts are high pressure contacts.

11. (original) The automatic transfer switch of Claim 1, wherein;

the beginning time of said second time delay is determined from the end time of said first time delay.

12. (original) The automatic transfer switch of Claim 5, wherein;

said second time delay is responsive to said controller;

wherein said controller overrides the nesting of said second time delay nested within said first time delay; and

wherein said second time delay is arranged serial to said first time delay.

13. (currently amended) An automatic transfer switch control system comprising:

an automatic transfer switch configured to switch power service between a first power source and a second power source, said automatic transfer switch comprising; a switch, a first timer, a second timer, a controller, and a computer;

said switch responsive to said first and second timers;

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said first and second timers responsive to said controller;

said controller responsive to said computer; wherein

said first and second timers have first and second time delays, respectively, and
initiation of said second time delay being is nested within said first time delay.

14. (original) The automatic transfer switch control system of Claim 13
wherein:

said first timer has a first parameter setting and said second timer has a second
parameter setting, and wherein;

said controller is responsive to said computer for establishing said first and said
second parameter settings.

15. (original) A method of switching an automatic transfer switch between
first and second power sources comprising:

receiving a first control signal at a first timer in response to a below-threshold
signal at a primary source;

initiating a first time delay at a first timer in response to said first control signal;

receiving a second control signal at a second timer from said controller;

initiating a second time delay at a second timer in response to said second control
signal;

completing said first time delay;

completing said second time delay; and

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transferring the electrical connection from the first power source to the second power source in response to said first and second time delays; wherein

said second time delay is nested within said first time delay.

16. (original) The method of Claim 15, wherein:

said initiating a second time delay at a second timer, comprises;

initiating the beginning time of said second time delay in response to the end time of said first time delay.

17. (original) The method of Claim 15, wherein:

said receiving a first control signal at a first timer comprises receiving a first logic timing function at a controller; and wherein

said receiving a second control signal at a second timer comprises receiving a second logic timing function at a controller.

18. (previously presented) The automatic transfer switch of Claim 2, wherein:

said third time delay is nested within said first time delay.

19. (currently amended) An automatic transfer switch comprising:

a switch for switching electrical connection from a first external power source to a second external power source;

a plurality of timers configured to provide a first time delay, a second time delay and a third time delay, wherein initiation of said second time delay and initiation of said third time delay are nested within said first time delay; and

said switch responsive to said plurality of timers.

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20. (new) The automatic transfer switch of Claim 1, wherein:

said initiation of said second time delay is subsequent to initiation of and prior to termination of said first time delay; and

termination of said second time delay is coincident with or subsequent to termination of said first time delay.